

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-55 (Canceled).

Claim 56 (New): An isolated nucleic acid molecule encoding a fusion protein comprising the amino acid sequence of SEQ ID NO: 1.

Claim 57 (New): An isolated vector comprising the nucleic acid molecule of claim 56.

Claim 58 (New): The isolated vector of claim 57, wherein said vector is a bacterial plasmid, a bacteriophage vector, a yeast episomal vector, an artificial chromosomal vector, or a viral vector.

Claim 59 (New): The isolated vector of claim 58, wherein said vector is a viral vector.

Claim 60 (New): The isolated vector of claim 59, wherein said viral vector is selected from the group consisting of baculoviral vectors, papoviral vectors, herpes viral vectors, adenoviral vectors, adenovirus-associated viral vectors, poxviral vectors, foamy viral vectors, and retroviral vectors.

Claim 61 (New): The isolated vector of claim 60, wherein said vector is an adenoviral vector.

Claim 62 (New): The isolated vector of claim 61, wherein said vector is an E1- and E3-deleted replication-defective adenoviral vector comprising an isolated nucleic acid

molecule encoding a fusion protein comprising the amino acid sequence of SEQ ID NO: 1 inserted in replacement of the E1 region and placed under the control of the CMV promoter.

Claim 63 (New): The isolated vector of claim 57, wherein said vector further comprises one or more transgenes encoding (i) a tumor proliferation inhibitor and/or (ii) at least one antigen.

Claim 64 (New): The isolated vector of claim 63, wherein said tumor proliferation inhibitor is a fusion protein which encodes a two domain enzyme possessing both CDase and UPRTase activities.

Claim 65 (New): The isolated vector of claim 63, wherein said antigen is a HPV antigen selected from the group consisting of E5, E6, E7, L1, and L2 either individually or in combination.

Claim 66 (New): The isolated vector of claim 65, wherein said HPV antigen is a membrane-anchored form of a non-oncogenic variant of the early HPV-16 E6 and/or E7 antigen.

Claim 67 (New): An isolated host cell comprising the nucleic acid molecule of claim 56.

Claim 68 (New): An isolated host cell comprising the vector of claim 57.

Claim 69 (New): A composition comprising the vector of claim 57 and a pharmaceutically acceptable vehicle.

Claim 70 (New): A composition comprising the host cell of claim 67 and a pharmaceutically acceptable vehicle.

Claim 71 (New): A composition comprising the host cell of claim 68 and a pharmaceutically acceptable vehicle.

Claim 72 (New): A method for producing a fusion protein, comprising the steps of:

(a) introducing the vector of claim 57 into a suitable host cell to produce a transfected or infected host cell,

(b) culturing *in-vitro* said transfected or infected host cell under conditions suitable for growth of the host cell,

(c) recovering said fusion protein from the culture of said host cell, and

(d) optionally purifying said recovered fusion protein.